

3. Carlos

Program Name: Carlos.java

Input File: carlos.dat

Carlos has decided to write a program to simulate the poker game Five Card Draw, where he stores each card using a unique number, with the diamonds numbered from 1-13, hearts from 14-26, spades from 27-39, and clubs from 40-52. Card #1 is the Ace of Diamonds, and card #13 is the King of Diamonds, #14 is the Ace of Hearts, and so on. Card #52 is the King of Clubs.

His program will input the ten numbers representing the cards alternately dealt to players A and B, and will tell him the best hand for each player, and which player wins the hand. According to the rules of poker, the hand rankings are as follows, in order of best to worst.

FOUR OF A KIND - all four of the same card from each suit, like four 2s or four Kings.

FULL HOUSE - three of one kind and two of another, like three 8s and two Aces.

FLUSH - five cards, all of the same suit, like five spades or five diamonds, in no particular order.

STRAIGHT - five sequentially numbered cards (dealt in any order) of at least two different suits, like Ace, 2, 3, 4, 5, or 10, Jack, Queen, King, Ace, or any sequence somewhere in the middle of the suit. With the exception of the Ace, which can count as either a "low" card (less than 2) or a "high" card (greater than King), wraparound sequences, like Queen, King, Ace, 2, 3, do not count as a straight.

THREE OF A KIND - three of one kind, like three 7s or three Jacks, but not a full house.

TWO PAIRS - 2 different pairs of the same kind, like two 5s and two 9s.

PAIR - one pair of the same kind, like two 4s or two Kings.

DUD HAND - Nothing good, for sure.

Input: Several poker hands of ten cards each, with the 1st, 3rd, 5th, 7th and 9th cards going to player A, and the others (2nd, 4th, 6th, 8th and 10th) to player B. The ten cards will all be on one line, separated by single spaces, according to the description above.

Output: In all uppercase letters and separated by " - " as shown in the sample output below, print the best poker hand for player A, the best poker hand for player B, and "PLAYER x WINS" (where x is the player with the winning hand).

Sample input:

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32 18 6 44 19 7 22 21 23 38
1 34 14 13 27 26 29 39 42 52
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Sample output:

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THREE OF A KIND - PAIR - PLAYER A WINS
FULL HOUSE - FOUR OF A KIND - PLAYER B WINS
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